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## EUROPEAN PATENT APPLICATION

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## (54) Recording and/or reproducing data

(57) A magnetic recording and/or reproducing apparatus achieves high performance encoding and high efficiency decoding to lower the decoding error rate. A magnetic recording and/or reproducing apparatus (50) includes, in its recording system, an error correction coder (51) for error correction coding input data and an interleaver (52) for scrambling the sequence of data supplied from the error correction coder (51). The magnetic recording and/or reproducing apparatus (50) also includes, in its reproducing system, a modulation and

error correction turbo decoder (64). The decoder (64) has a deinterleaver for scrambling and re-arranging the sequence of the input data such as to restore the sequence of input data re-arranged by the interleaver (52) to an original bit sequence, an error correction soft decoder (84) for decoding data supplied from the deinterleaver and a second interleaver (86) for scrambling and re-arranging the sequence of data given as a difference between data output from the error correction soft decoder and data output from the deinterleaver.

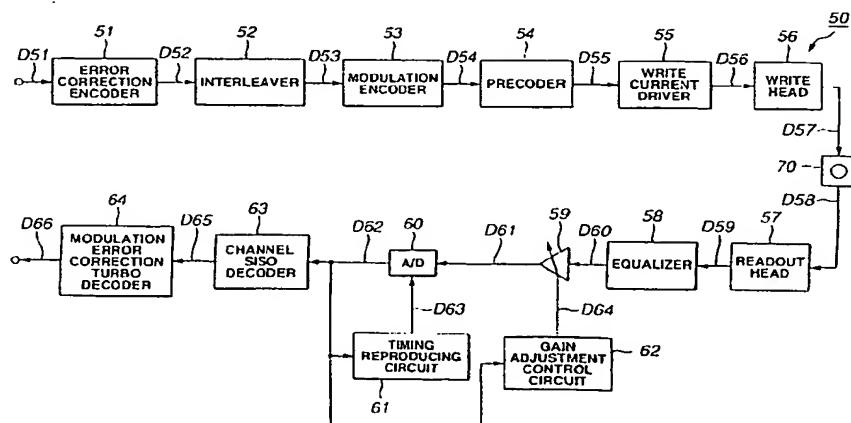


FIG.7

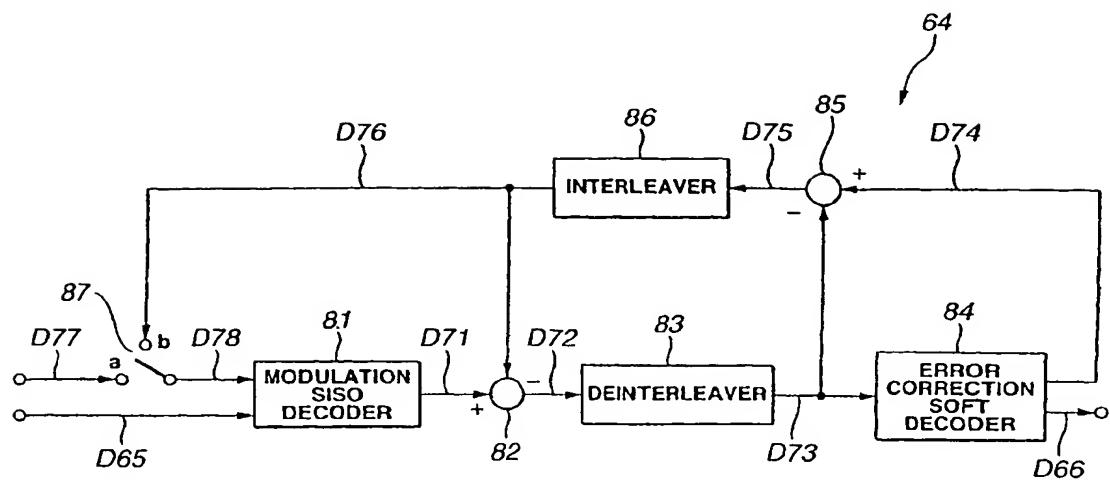


FIG.8



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EP 01 30 2686

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The present search report has been drawn up for all claims			
Place of search:  THE HAGUE	Date of completion of the search:  23 October 2003	Examiner:  Ogor, M	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
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<p>The present search report has been drawn up for all claims</p>			
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THE HAGUE	23 October 2003	Ogor, M	
CATEGORY OF CITED DOCUMENTS		<p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>&amp; : member of the same patent family, corresponding document</p>	
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**ANNEX TO THE EUROPEAN SEARCH REPORT  
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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23-10-2003

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